

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Please cancel claims 9 – 15 without prejudice or disclaimer.

1. (Original) A method of manufacturing an electric wiring of a semiconductor device including a semiconductor element formed on a semiconductor substrate and an aluminum alloy wiring connected to the semiconductor element on the semiconductor substrate, the method comprising:

forming an aluminum alloy layer on the semiconductor substrate, the aluminum alloy layer containing metal which restricting an movement of aluminum;

forming TiN film on the aluminum alloy layer by using sputtering, a DC power of the sputtering is set to equal to or less than 5.5 W/cm^2 so that a formed TiN film being rich with reactivity.

2. (Original) The method of manufacturing an electric wiring according to claim 1, wherein the TiN film is formed to have a thickness of 5 nm or more.

3. (Original) The method of manufacturing an electric wiring according to claim 1, wherein the TiN film is formed under a condition where a temperature of an atmosphere surrounding the semiconductor substrate during the sputtering is approximately 180°C or less.

4. (Original) A method of manufacturing an electric wiring of a semiconductor device including a semiconductor element formed on a semiconductor substrate and an aluminum alloy wiring connected to the semiconductor element on the semiconductor substrate, the method comprising:

forming an aluminum alloy layer on the semiconductor substrate, the aluminum alloy layer containing metal which restricting an movement of aluminum;

forming TiN film on the aluminum alloy layer by using sputtering, the sputtering being conducted using TiN as a target and being conducted without containing N₂ gas in an atmosphere surrounding the semiconductor substrate.

5. (Original) The method of manufacturing an electric wiring according to claim 1, wherein the sputtering is conducted by using TiN, formed on a surface of a Ti target, as the target of the sputtering.

6. (Original) The method of manufacturing an electric wiring according to claim 5, wherein the step of forming TiN film on the aluminum alloy layer including:

first sputtering the TiN film by using the TiN formed on the surface of the Ti target in the atmosphere without containing N₂ gas; and

second sputtering another TiN film on the TiN formed in the first sputtering in the atmosphere containing N₂ gas.

7. (Original) The method of manufacturing an electric wiring according to claim 4, wherein the step of forming TiN film on the aluminum alloy layer including:

first sputtering the TiN film by using the TiN formed on the surface of the Ti target in the atmosphere without containing N₂ gas; and

second sputtering another TiN film on the TiN formed in the first sputtering in the atmosphere containing N₂ gas, after the TiN is formed on an entire surface of the aluminum alloy layer in the first sputtering.

8. (Original) The method of manufacturing an electric wiring according to claim 4, wherein the sputtering is conducted in a condition where a DC power of the sputtering is set to equal to or less than 5.5 W/cm² so that the formed TiN film is rich with reactivity.

Claims 9-15 (Cancelled)